Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-23. (Cancelled)

24. (Currently amended) A method of manufacturing an electrochemical cell, the method comprising:

providing ~~an~~ a positive electrode including a lambda-manganese oxide; and

after providing the positive electrode, forming a cell including the positive electrode and a lithium negative electrode,

wherein the cell has a closed circuit voltage of about 4V and a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of greater than 120 mAh/g.

25. (Currently amended) The method of claim 24, wherein providing the positive electrode includes preparing lambda-manganese dioxide by a method comprising:

contacting water with a compound of the formula $Li_{1+x}Mn_{2-x}O_4$, wherein x is from –0.02 to +0.02;

adding an acid to the water and compound until the water has a pH of 1 or less;

separating a solid from the water and acid; and

drying the solid at a temperature of 120°C or below to obtain the lambda-manganese dioxide.

26. (New) The method of claim 25, wherein the compound has a BET surface area of between 1 and 10 m^2/g.

27. (New) The method of claim 25, wherein the compound has a spinel-type crystal structure.

28. (New) The method of claim 25, wherein the solid is dried at a temperature between 30°C and 90°C.

29. (New) The method of claim 25, wherein the solid is dried at a temperature between 50°C and 70°C.

30. (New) The method of claim 25, wherein x is from –0.005 to +0.005.

31. (New) The method of claim 25, wherein contacting water and the compound includes forming a slurry.

32. (New) The method of claim 31, wherein the slurry is maintained at a temperature below 50°C.

33. (New) The method of claim 31, wherein the temperature of the slurry is held substantially constant during the addition of acid.

34. (New) The method of claim 25, wherein the acid comprises sulfuric acid, nitric acid, perchloric acid, hydrochloric acid, toluenesulfonic acid or trifluoromethylsulfonic acid.

35. (New) The method of claim 25, wherein the pH is 0.7 or less.

36. (New) The method of claim 25, wherein the acid has a concentration of between 1 and 8 molar.

37. (New) The method of claim 25, further comprising washing the solid separated from the liquid phase with water until the washings have a pH of between 6 and 7.

38. (New) The method of claim 24, wherein the cell comprises a primary cell.

39. (New) The method of claim 24, wherein the cell has a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of greater than 130 mAh/g.

40. (New) The method of claim 24, wherein the cell has a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of greater than 135 mAh/g.

41. (New) The method of claim 24, wherein the cell has a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of 140 mAh/g or greater.

42. (New) The method of claim 24, wherein the lambda-manganese oxide has a BET surface area of greater than 4 m^2/g.

43. (New) The method of claim 24, wherein the lambda-manganese oxide has a BET surface area of greater than 8 m^2/g.

44. (New) The method of claim 24, wherein the lambda-manganese oxide has a total pore volume of from 0.05 to 0.15 cubic centimeters per gram.